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Birsha [GB/GB]; GlaxoSmithKline, Park Road, Ware,
Hertfordshire SG12 0DP (GB).

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(74) Agent: **THOMPSON, Clive, Beresford**; GlaxoSmithK-
line, Corporate Intellectual Property (CN925.1), 980 Great
West Road, Brentford, Middlesex TW8 9GS (GB).

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(71) Applicant (for all designated States except US): **GLAXO
GROUP LIMITED** [GB/GB]; Glaxo Wellcome House,
Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB).

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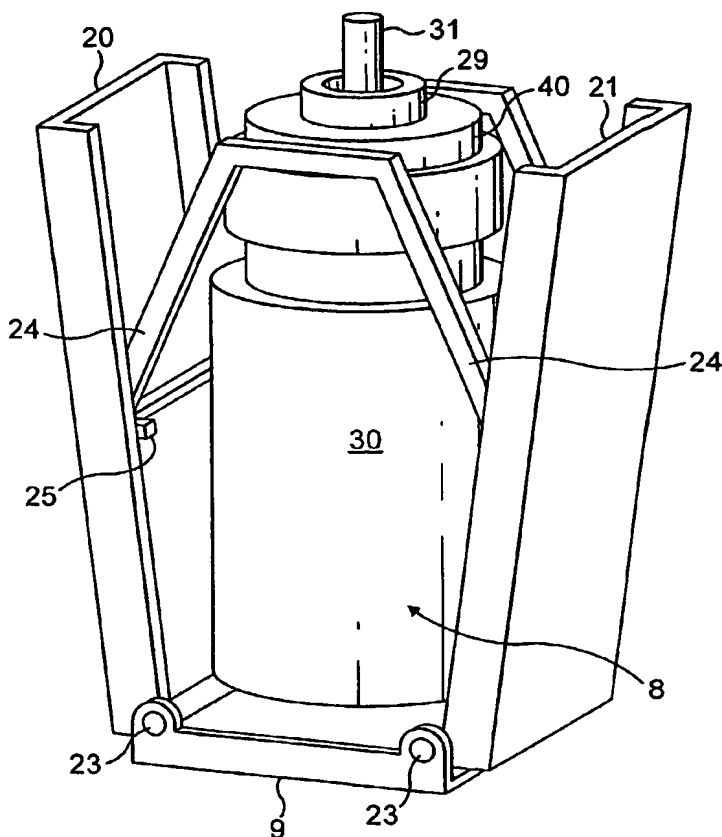
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(72) Inventor; and

(75) Inventor/Applicant (for US only): **DAVIES, Michael**,

[Continued on next page]

(54) Title: A FLUID DISPENSING DEVICE



(57) Abstract: There is provided a fluid dispenser (5, 105, 205, 305, 405) having a housing (9, 109, 209, 309, 409) and a pump action fluid discharge device (8, 108, 208, 308, 408). The pump action fluid discharge device (8, 108, 208, 308, 408) is arranged to be actuated by one or more levers (20, 21, 120, 220, 221, 320, 321, 420, 421) which are pivotally supported within the housing (9, 109, 209, 309, 409). When the or each lever (20, 21, 120, 220, 221, 320, 321, 420, 421) is rotated about its lower end the fluid discharge device (8, 108) is urged towards a nozzle (11, 111, 211, 311, 411) causing a single dose of fluid to be dispensed from the nozzle (11, 111, 211, 411). Various mechanisms are proposed for converting the transverse application of force from each lever (20, 21, 120, 220, 221, 320, 321) into a force along a longitudinal axis of the fluid discharge device (8, 108, 208, 308, 408).



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Interr.

plication No

PO

03/08499

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61M11/02 A61M15/08 B05B11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61M B05B B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 812 826 A (VALOIS SA) 15 February 2002 (2002-02-15)	1-6, 11-13, 28, 30-37, 40-43, 45-49 29,39
Y	page 1, line 1 - page 4, line 27 page 6, line 9 - page 10, line 16 figures 1,3A,6A,6B,8A,8B,10	
Y	US 6 189 739 B1 (VON SCHUCKMANN ALFRED) 20 February 2001 (2001-02-20) column 1, line 47 - line 65 column 5, line 31 - line 50 figures 1,2,10	29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

12 January 2004

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Borowski, A

INTERNATIONAL SEARCH REPORT

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Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2 251 898 A (D M W) 22 July 1992 (1992-07-22) page 8, line 5 - line 10 -----	39
A	US 3 272 391 A (PHILIP MESHBERG) 13 September 1966 (1966-09-13) Whole document -----	2-4, 28, 30-32, 36, 37, 43
A	FR 2 807 954 A (CMC JEAN LOUIS VERMEIL) 26 October 2001 (2001-10-26) page 4, line 7 - line 13; figure 1 -----	3, 4, 15
A	US 6 315 165 B1 (REGAN PHILIP M) 13 November 2001 (2001-11-13) column 2, line 30 - column 3, line 13; figures 1-4, 6, 7 -----	43
A	WO 03/095007 A (DAVIES MICHAEL BIRSHA ; GLAXO GROUP LTD (GB)) 20 November 2003 (2003-11-20) Whole document -----	1-51

INTERNATIONAL SEARCH REPORT

Inte al application No.
EP 03/08499

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 56-58
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-51

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 56-58

Claims 56-58 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. Said claims contain references to the drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-51

Claims 1-51 essentially define a fluid dispensing device;

2. claim: 52

Claim 52 essentially defines a fluid discharge device;

3. claims: 53-55

Claim 53-55 essentially define a housing assembly.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat

Application No

PCT

3/08499

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